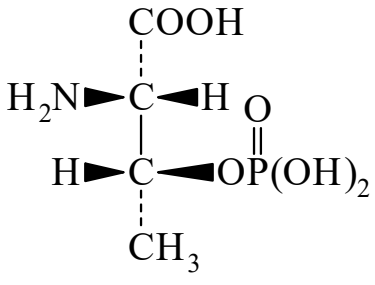
>>**Entry Name: 2-Amino-3-phosphonooxybutanoic acid**
Synonym(s): Threonine phosphate. Threonine dihydrogen phosphate. *O*-Phosphothreonine



(2*S*,3*R*)-*form*

Molecular Formula: $C_4H_{10}NO_6P$
Molecular Weight: 199.1
Accurate Mass: 199.024576
Percentage Composition: C 24.13%; H 5.06%; N 7.04%; O 48.22%; P 15.56%

>>**Variant:** (2*S*,3*R*)-form
Synonym(s): L-form

CAS Registry Number: 1114-81-4

Molecular Formula: $C_4H_{10}NO_6P$
Molecular Weight: 199.1
Accurate Mass: 199.024576
Percentage Composition: C 24.13%; H 5.06%; N 7.04%; O 48.22%; P 15.56%
Use/Importance: Formed in many cellular processes. Insol. from casein hydrolysates
Melting Point: Mp 194 dec.°
Optical Rotation: $[\alpha]_D^{24}$–7.4 (c, 2.58 in H_2O)
Fluka: 79717
Sigma: P1053

>>**Variant:** (2*RS*,3*SR*)-form

CAS Registry Number: 27530-80-9

Molecular Formula: $C_4H_{10}NO_6P$
Molecular Weight: 199.1
Accurate Mass: 199.024576
Percentage Composition: C 24.13%; H 5.06%; N 7.04%; O 48.22%; P 15.56%
Physical Description: Solid
Melting Point: Mp 194 dec.°. Mp 150-152 dec.°
Sigma: P1003

>>**Derivative:** *P*,*P*-Di-Ph ester, *C*-Et ester
Synonym(s): Ethyl 2-amino-3-[(diphenoxyphosphinyl)oxy]butanoate

Molecular Formula: $C_{18}H_{22}NO_6P$
Molecular Weight: 379.349
Accurate Mass: 379.118476
Percentage Composition: C 56.99%; H 5.85%; N 3.69%; O 25.31%; P 8.16%
Physical Description: Solid (as hydrobromide)
Melting Point: Mp 88-89° (hydrobromide)

>>**Derivative:** *P*,*P*-Di-Ph ester, *C*-Et ester, *N*-benzyloxycarbonyl
Synonym(s): Ethyl 2-(benzyloxycarbonyl)amino-3-[(diphenoxyphosphinoyl)oxy]butanoate

Molecular Formula: $C_{26}H_{28}NO_8P$
Molecular Weight: 513.483
Accurate Mass: 513.155256
Percentage Composition: C 60.82%; H 5.50%; N 2.73%; O 24.93%; P 6.03%
Physical Description: Cryst. (Et_2O/petrol)
Melting Point: Mp 56-57°

References: